

from a perfect and elaborate work of art. Their beauty is akin to that of domestic buildings, which please the eye by boldness and variety of outline, by picturesque groupings of gables, turrets, and porches, but are seldom to be considered as great works of architecture, or illustrations of the principles of the art. So far are we from admiring the fruit of design, that the more fortuitous such a building appears, the more satisfactory is its character. A congeries of detached portions, with their own roofs, put together at different times, simply as they were wanted, usually produces the most pleasing form of the small village church. But this mere picturesque beauty would not be sufficient for a minster or even a great parish church: we there look for real art, real design, and beauty as its result—sought for and directly aimed at throughout. But mere picturesque effect is generally the result of accident, or at least of the operation of some unseen law: to make a deliberate attempt at it is the surest way to miss it.

When we have a clerestory, we have at once reached the sphere of architectural design, for it is usually a loss in the point of picturesque effect. The distinct high roofs and the clerestory belong to two distinct kinds of beauty, and are each satisfactory in their own way. With the latter we generally find combined a certain regularity prevalent throughout; the building becomes an architectural whole, and amenable to architectural criticism. It hence follows that here real architectural merit is necessary, which it is not in the former class; hence arises the danger of mediocrity: the aim being placed higher, it is more frequently missed; and, consequently, buildings of this class, with details of much better character, are often less pleasing than the rudest and most unpretending structures of the merely picturesque order.

Now it seems to me that, speaking broadly, the picturesque form belongs to the Early, the more strictly architectural to the Continuous, Gothic. The picturesque church is often of Perpendicular date, but it affords no scope for the development of the true Perpendicular character. The thick-set ranges of large windows, the rich parapets and elaborate low-pitched roofs, the tall slender pillars, the lofty towers crowned with a forest of pinnacles or a diaphanous lantern, are all excluded. A few plain lancets, a low round column, a shingle spire, are incomparably more in character. The two types never harmonise: sometimes in Somersetshire we see a magnificent perpendicular steeple attached to a little picturesque church, but they never fuse naturally into one whole.

But the regular architectural type of parish church is essentially Continuous, though in some districts, as in Northamptonshire, it began to be introduced sooner. We have it nearly in its perfection in Somersetshire,—the tall aisles and clerestory with the lofty western tower. Unfortunately, however, in that district, the chancels retained from elder churches are comparatively small and mean. In other parts we often find a quasi-basilican arrangement, the aisles running uninterruptedly to the east end, or nearly so, without any architectural distinction between the nave and the chancel. This we have in our own neighbourhood at Ewelme; but I cannot admire it. In the best type of all, the chancel, with or without aisles, is distinguished by a slight inferiority of height to the nave: it may even have a high roof. St. Margaret's, at Leicester, and Penkridge, in Staffordshire, will illustrate my meaning as far as the general arrangement goes, though the individual features are very far below the Somersetshire standard.

We have thus arrived at the higher type of the English parish church, as distinguished from the minster on the one hand, and from the merely picturesque building on the other. I think every one who has really considered the subject will feel that, as I said, it is distinguished from the minster by some difference other than mere inferiority of size and ornament. But more than this, it always seems to me that the largest churches of this type are too large for their type. Boston, which I know only by engravings, I imagine to be the largest church conceived on the strictest parochial

type, without so much as aisles to the choir. Of Newark, and St. Michael's, Coventry, I can speak from my own impression, which decidedly was that, even modified as the type there is by a greater complication of outline, they were vastly too large for their type, and that churches of that immense size are not satisfactory unless designed on the genuine cathedral model. Now this seems to me to show that a type which is only satisfactory on a comparatively small scale, is in itself an essentially inferior one.

Nevertheless, this higher parochial type, as being one of strictly architectural design, is a great advance in the direction of the minster upon that which owes its beauty to merely picturesque effect. Let us now endeavour to point out a few of the intermediate stages. The greatest step is certainly to make the church cruciform: this of course does not of itself bring the church into the cathedral order, but it does more towards it than any other single change. The cross form is surely the very noblest that an ecclesiastical building can assume. It, in fact, combines the beauties of both the classes of which we have hitherto been speaking; while it affords the grandest scope for strictly architectural design, it commands by its own inherent nature that beauty of varied and picturesque outline which in other cases is usually the result either of successive alterations, or of some happy accident at the time of erection. But in a cross church the different direction of the four arms at once supplies the required variety in a degree fully sufficient. I say this, because I hold it a mistake to seek for additional variety by picturesque arrangements of gables, as at Purton, Cheltenham, and Kidlington. These all seem instances of the picturesque form carried out on too large a scale.

By a cross church, I understand the complete cross form, with the predominant central tower, and the four arms of equal height. Where the former is absent, the chief beauties, both within and without, are altogether lost. The convergence of the four arms at the crossing, to support the central steeple, is the grandest instance of pyramidal development as applied to the composition of whole buildings. When the tower is absent, and the transepts are the same height as the nave and chancel, the intersection absolutely cries for its crowning steeple; when they are lower, all cruciform effect is gone. This is the case in many parish churches, in which the transepts are hardly more than chapels; they impart hardly more of the character of a cross church than a porch or sacristy does; the whole composition is centered in the chancel, nave, and western tower. Such are the two splendid churches of Finedon and Rushden, with their neighbour of Irthlingborough, and the still more stately fabrics of Newark, Glastonbury, and St. Cuthbert, at Wells. The transepts are but appendages to the nave and aisles, being hardly higher than the latter, and having the clerestory continued uninterruptedly over them. And even when the transepts are the full height, as at Highworth and Adderbury, the complete cross form is not gained,—indeed, it is no improvement, as the want of the central tower is only rendered more conspicuous: these are imperfect cross churches, while the others may pass as examples of the oblong class. Still less can any amount of length given to the transepts alone for the want of elevation. This may be shown by comparing Barrow Church, Leicestershire, with St. John's at Coventry; the former has very long transepts, but as they only project from the aisles and the clerestory is continued above them, the tower being western, there is no cruciform object whatever. The other has transepts which actually do not project beyond the aisles, still, as they are of the full height, and support the tower, the cross form comes out in its perfection.

A fault yet more grievous is when the chancel is of dimensions inferior to the rest. This is most common in our parish churches of all forms, but it is more conspicuous and inexcusable in cruciform buildings, where the interposition of the tower makes the external distinction so much more conspicuous than

can be done by any other means. In a church without a central tower a slight superiority in height on the part of the nave is never objectionable, as it serves at once to distinguish between the parts of the building, and to break the formality of the long roof line. But even in these cases we often find the difference in height vastly exaggerated, the chancel being, perhaps, not higher than the aisles. This arises from many causes: sometimes an elder and smaller chancel is retained when the church is rebuilt, as is so often the case in the magnificent churches of Somerset: in others a clerestory has been substituted for the high roof of the nave, and a chancel without aisles has had its roof lowered to harmonise therewith without any addition being made to the height of the walls. In many cases, however, it has been so from the beginning, as is shown by the low chancel arch. This is sufficiently to be regretted in churches not cross, as Sileby, Loughborough (this church has small transepts, but they are nearly swallowed up), Chipping Warden; but in cruciform buildings it is positively painful. Thus the stately nave of Yatton has for its eastern limb a diminutive chancel, hardly so high as its aisles, and the like is the case at Crewkerne, and with the church at Melton Mowbray, one whose other parts are conceived on so magnificent a scale as to have aisles on both sides of the transepts.

In the interior the want of the central tower, or of the equal height of the four limbs, is yet more severely felt. In the former case we entirely lose the majestic lantern, the four stately arches under the tower, which are the especial glory of a cruciform church; either the arcade is continued uninterruptedly and the transepts are entirely lost, as at Finedon and Irthlingborough, or if they are entered by arches loftier than the rest, as at Rushden, it is simply productive of irregularity. Even the rich strainer arch across the nave of the latter church, and the similar example at Finedon, beautiful as they are in themselves, and admirable exhibitions of the skill with which the ancient architects grappled with an unforeseen difficulty, and converted a mere prop or brace into an ornamental feature, cannot compare with the simple dignity of the genuine lantern.

And even when there is a real lantern, if from any cause its arches are much lower than the height of the nave, its effect is very much lost. The majesty of the lantern itself is very much impaired; and, besides, a blank space is created above the arches, which has an awkward appearance. This is very conspicuous at Stafford and Yatton, where the lanterns are designed for churches much smaller and lower than they are at present: this is still more conspicuous at Stafford, as all the limbs are the full height.

In fact, though it sounds like a paradox, if either of the elements of a cruciform design is to be absent, it is better to lose the transepts than the central tower. I am sure, however, that I may be a much nearer approach to the real cruciform type than churches like Highworth and Barrow.

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METALLURGIC SCHOOLS FOR OPERATIVES WANTED.—In a recent lecture on the metal manufactures, delivered by Mr. Warren, at Manchester, the lecturer strongly urged the importance of mechanics becoming more intimately acquainted with the materials and rationale of the processes in which they are engaged, and cited Dr. Lyon Playfair's opinion, that, as sure as darkness succeeds the setting sun, our manufacturing greatness will decline, in the face of French and other foreign artisan enlightenment, unless our mechanics pay more attention to the scientific principles of the arts they practise. Mr. Warren illustrated this by various examples, showing the necessity of manufacturers establishing schools, not merely of design, but of metallurgy—for elucidating the principles on which its operations are conducted. Neglect or delay, he remarked, would be penny wise and pound foolish.